

t8_member_1 (TMWpB-
VrA6DDDeHdXqHfcwHgcjX75s5KySQd1)

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Let $v2_membered : \iota \Rightarrow o$ be given. Let $k4_member_1 : \iota \Rightarrow \iota$ be given. Let $k5_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v2_membered X1) \Rightarrow (k4_member_1 (k6_subset_1 X0 X1) = k6_subset_1 (k4_member_1 X0) (k4_member_1 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v2_membered X1) \Rightarrow (k4_member_1 (k2_xboole_0 X0 X1) = k2_xboole_0 (k4_member_1 X0) (k4_member_1 X1))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(v2_membered X0) \Rightarrow (v2_membered (k4_xboole_0 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.k5_xboole_0 X0 X1 = k2_xboole_0 (k4_xboole_0 X0 X1) (k4_xboole_0 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (6)$$

Theorem 1

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v2_membered X1) \Rightarrow (k4_member_1 (k5_xboole_0 X0 X1) = k5_xboole_0 (k4_member_1 X0) (k4_member_1 X1)))$$